

Review entire bylaw for cross references

**§205-5 Building and zoning permits**

**A. Building and zoning permits required.**

- (1) ~~Except as provided in §205-18, no~~ building or other structure shall be erected, structurally altered, added to, or moved, nor shall any cutting of trees, clearing of land, or excavation of soil be carried out, whether or not for purposes of construction, nor shall any change of land use be made unless a zoning permit has been issued, and no building permit, as required by the Building Code, shall be issued without an approved zoning permit. The Building Inspector shall issue no permit except for work in conformity with the provisions of this bylaw unless he receives a written order from the Zoning Board of Appeals allowing otherwise as follows hereinafter, § 205-9.

**§205-18 Natural features conservation requirements**

**B. Application of requirements and procedures.**

- (3) Without an approved zoning permit issued by the Building Commissioner, there shall be ~~no excavation or grading of soil or other geological material in excess of 10 cubic yards and~~ no cutting of trees larger than six inches in breast height diameter (diameter at breast height of mature man) and no clearing of trees in excess of three feet tall from any area larger than 3,000 square feet.

**§ 205-40 Rural Residential**

Delete

- D (1) Sand and gravel quarries and similar extractive industries, subject to § 205-18.

**§ 205-3**

**DEFINITIONS**

Agricultural use – Farming in all its branches, including cultivation and tillage of the soil; dairying; production, cultivation, growing and harvesting of any agricultural, aquacultural, floriculture, viticulture or other horticultural commodities; growing and harvesting of forest products upon forest land; raising of livestock including horses and the keeping of horses as a commercial enterprise, keeping and raising bees, fur-bearing animals, poultry, swine, cattle and any domesticated animal used for food purposes; any forestry or lumbering operations, performed by a Farmer.

Farm – A parcel of land, the principal use of which is Agriculture, having a minimum Area of 5 acres, or, provided it meets the requirements for sources, types and annual sales of products required by G. L. c. 40A, §3, a parcel of land having a minimum area of 2 acres.

**Invasive Vegetation** – Plant materials that have been introduced or spread into native or minimally managed plant systems in Massachusetts and may be detrimental to native vegetation due to their propensity to cause economic or environmental harm by becoming dominant and/or disruptive to systems of native vegetation, including but not limited to those plants listed at <http://www.mass.gov/eea/agencies/agr/farm-products/plants/massachusetts-prohibited-plant-list.html>.

**Native Vegetation**– Plant materials that are endemic or indigenous to the New England region, consisting of trees, shrubs, grasses and flowering plants that have naturally evolved in the region.

**Earth Removal** - The mining and removal of sand, gravel, clay, mineral deposits or quarried stone that alters the natural topography.

**Cranberry Cultivation Earth Removal:** Earth Removal that is necessary and incidental to:

- a . Preparing a site for cranberry cultivation, including excavation for the purpose of creating wetland resource areas such as ponds, canals, cranberry bogs, and land subject to flooding as defined under the M.G.L. Ch. 131 §40 and as defined in Massachusetts Wetlands regulations 310 CMR 10.00, or
- b. Maintaining or improving contiguous or non-contiguous land for cranberry cultivation purposes, but
- c. Excluding earth removal for the primary purpose of sale or trade.

**Test Pit** - Earth removal with the intention of determining its composition and/or market value.

**Topsoil** - The O and A Soil Horizons which have the greatest amount of organic matter and microorganisms and is the most favorable material for plant growth and ground water filtration.

**Overburden** – The material below topsoil and above sand and gravel deposits.

**§ 205-18**

**Delete the current Section 205-18.F in its entirety and insert the following new text.** Subsections below will need to be re-numbered consistent with the Zoning Bylaw.

**F. EARTH REMOVAL REGULATION**

**Intent**

To allow for the reasonable removal of earth necessary for agriculture, residential, commercial and industrial uses, while also protecting the environment.

To assure to the greatest extent as reasonably possible that earth removal activities shall be conducted in a safe manner.

To assure to the greatest extent as reasonably possible that earth removal operations are conducted in a manner that will not cause undue stress to town's natural resources

To prevent detriment to adjacent neighborhoods from earth removal activities: and

To prevent cumulative damage to landscape, aquifer and topography and related valuable and nonrenewable natural resources, while not unreasonably interfering with necessary, desirable, or creative land uses.

**A. Earth Removal Operations Not Requiring a Zoning Permit or a Special Permit**

The following earth removal operations do not require a Zoning Permit under Section 205-5 or a Special Permit under this Section 205-18:

1. Earth removal related to the installation of Title V (septic) systems;
2. Earth removal of up to 100 cubic yards in a calendar year in the course of normal gardening or landscaping;
3. Earth removal of up to 200 cubic yards necessary and incidental to the construction of single family and two-family dwellings;
4. Earth removal of up to 1,000 cubic yards necessary and incidental to construction of multi-family dwellings, commercial uses, and industrial uses;
5. Earth removal of up to 2,500 cubic yards per calendar year necessary and incidental to an agricultural use not related to cranberry cultivation; or
6. Cranberry cultivation earth removal (see definition).

**B. Earth Removal Operations Requiring a Zoning Permit but not a Special Permit**

All earth removal operations not included in Section A of this Section 205-18.F require a Zoning Permit under Section 205-5 but do not require a Special Permit under this Section 205-18, provided that:

1. The Building Commissioner shall forward copies of the zoning permit application and plans to the Planning Board for review. The Planning Board will consider if in their opinion the Earth Removal Operation requires the Special Permit Minimum

Conditions and Safeguards set forth in Section C below in addition to the Zoning Permit Minimum Conditions and Safeguards set forth in this Section B. Said opinion shall be forwarded to the Building Commissioner within 21 days of receipt of said application and plans.

If the Building Commissioner makes a determination that:

- a. The earth removal is;
  - i. Objectively necessary and incidental to an identified lawful principal use, a lawful structure, an approved subdivision road, or lawful utility installation; and
  - ii. Not of such scale or other characteristics as to require special conditioning in order to avoid possible objectionable negative effects (such as heavy equipment noise, vibration, dust or vehicular traffic) to abutting properties, the Town, or the environment; and
  - iii. Is otherwise in compliance with this Bylaw and all other applicable legal requirements.

OR

- b. The earth removal is occurring on property in the Light Industrial and Commercial (GC, AC, LI, AP, MC and HC) Districts and is necessary and incidental to a lawful end use which has received all required local and state permits for the use and which end use has been fully designed.

Then a special permit shall not be required.

For the purposes of Section 205-18(F), incidental shall be defined as meeting all of the following:

1. Is minor in significance to the primary use.
2. Is commonly established as reasonably associated with the primary use.
3. Is necessary to carry out the primary use.
4. Does not conflict with the intent of Section 205-18(F).
5. Is minor in its net effect to that of the principal use, based on the amount of material to be removed and the time period over which it is to be removed and/or the amount of profit to be derived from the earth removal operations.

Zoning Permit Minimum Conditions and Safeguards. All earth removal operations included in Section B of this Section 205-18(F) are subject to site plan review per §205-32 and shall comply with the following minimum conditions and safeguards (note: these conditions and safeguards can be reduced or waived by special permit from the Board of Appeals):

1. The maximum depth of the excavation shall be no closer than ten feet above the highest historical groundwater level, except for excavations associated with cranberry cultivation for the purposes of constructing cranberry bogs, irrigation ponds, tailwater ponds, flowage canals, and other like facilities typically associated with cranberry cultivation which may be closer to the water table.
2. A revegetation plan prepared by a professional Landscape Architect or an equivalent qualified professional shall be submitted to and approved by the permit granting

- authority. The plan shall include Native Vegetation (trees, shrubs and grasses) planted at a density similar to the surrounding areas.
3. Overburden shall be stripped with topsoil and subsoil stored separately on site, and seeded to prevent erosion for use in the restoration of the site.
  4. A minimum of four inches of topsoil shall be placed on areas designated to be restored to a natural state (side slopes, open space and areas that are not to be otherwise improved). This minimum depth of topsoil shall be increased to 12 inches in the Aquifer Protection District Zone II.
  5. All areas of excavation and access ways to earth removal operations shall be clearly marked with legally posted no trespassing signs. Areas of steep slope or grade, as judged by the permit granting authority, shall additionally be fenced and clearly marked "DANGER- KEEP OUT every 150 feet.
  6. Excavation or depositing of excavated material shall not be made within 50 feet of any lot line and no excavation depth of greater than 15 feet shall be made within 100 feet of any lot line. For excavation sites in or directly abutting the RR, R40, R25, R-20SL and R-20MF, excavation shall not occur within 200 feet of the project's property lines which shall include a 100 foot vegetated natural buffer. The Board of Appeals may reduce these requirements when the excavation site:
    - a. Is located on a uniquely sloped lot where the change in topography screens the site from abutting uses;
    - b. Abuts a similar use; or
    - c. Such a reduction will not be detrimental to an abutting use.
  7. Excavation, trucking and equipment start-up and operation and any related use shall be limited to Monday through Friday and hours of operation shall be limited to 7:00 AM to 4:00 PM, with no excavation activities permitted on State or federal holidays.
  8. The Building Commissioner or authorized agent shall have access to the excavation site at all times in order to inspect the site to insure compliance with the approved site plan.
  9. Heavy vehicle round trips shall be limited to 40 round trips per day to and from the site.
  10. A heavy vehicle route plan sufficient in the opinion of the Building Commissioner shall be established to minimize the negative effects of heavy vehicle.

### **C. Earth Removal Operations Requiring a Zoning Permit and a Special Permit**

A special permit is required for Earth Removal Operations that do not meet the provisions of 205-18(B) and are not otherwise prohibited. A Zoning Permit under Section 205-5 and a Special Permit from the Board of Appeals ("the Board of Appeals") under this Section 205-18.F is required for all earth removal operations:

1. With side slopes exceeding 3 to 1; or
2. With cuts to the natural topography exceeding 40 feet; or
3. Which are not included in Section A or Section B of this Section 205-18.F.

An applicant for a Special Permit for earth removal shall be required to submit the following information, in addition to the information required by Section 205-9:

1. Identification of all on-site processing equipment proposed to be used, its location while in use or staged, and specific measures to minimize noise, vibration, dust and other negative effects of excavation, processing and related activities.
2. Identification of topsoil and subsoil composition, depth of gravel as well as depth to groundwater. The number, location, sample size and depth of such test pits shall be established by a qualified Professional Engineer.
3. An alternatives analysis describing alternatives to the location and size of the earth removal operation that would:
  - a. Minimize the amount of earth removed;
  - b. Minimize the area of land disrupted; or
  - c. Reduce the length of the earth removal operation.

The alternatives analysis shall also include a discussion of the advantages and disadvantages of the preferred alternative over the alternatives, and may include a cost comparison with each. The analysis shall be reviewed by the Town's consulting engineers, after which the Board of Appeals shall have the right to require that additional alternatives be considered and evaluated.

Special Permit Minimum Conditions and Safeguards. In addition to the Zoning Permit Minimum Conditions and Safeguards, all earth removal operations included in Section C of this Section 205-18 shall also comply with the following minimum conditions and safeguards, unless the Board of Appeals determines that existing conditions are in place to adequately protect the public health and safety (note: these conditions and safeguards can be reduced or waived by the Board of Appeals):

- a. The following conditions shall apply:
  - a. Ten foot wide terraces are required for areas where cuts to the natural topography exceed 40 feet (on slopes exceeding 80 feet, terraces are required each 40 foot cut).
  - b. Side slopes exceeding 3 to 1 grades may be allowed by the Board of Appeals provided that the slopes do not exceed the soil's natural angle of repose and the Board of Appeals finds that the soils are suitable for steeper slopes and adequate revegetation plans are submitted.
  - c. Heavy vehicle round trips: A limit of 40 round trips per day to and from the site. The Board of Appeals may allow an increase in vehicle trips if based on a traffic analysis prepared by a qualified professional demonstrates to the Board's satisfaction that the increased trips will not:
    - i. When added to the existing traffic volume of the streets servicing the project prior to the commencement, exceed 85% of the capacity of the streets serving the project, as determined by a Professional Traffic Operations Engineer (PTOE), and
    - ii. When added to the existing traffic, cause the level of service of any traffic approach at any street intersection to fall below a "D" level of service, as defined by the Highway Capacity Manual, 5<sup>th</sup> ed. 2010; or successor editions

or professional standard publications. For the purpose of this Section, "intersection" includes at least two of the following: Major or Collector Streets, multilane highways or two-lane rural highways as defined by said Highway Capacity Manual; and

- iii. Significantly impact (noise, vibration, etc.) residents living on the streets serving the excavation project.
- d. Heavy vehicle route: A proposed route plan sufficient to minimize the negative effects of heavy vehicle traffic shall be submitted.
- e. An operation sequencing plan updated quarterly with details on activities to occur over the next three months shall be submitted.
- b. Quarterly inspections and quarterly written certifications from a registered Professional Engineer shall be submitted to the Building Commissioner demonstrating substantial compliance with the Zoning Bylaw, the earth removal Special Permit, and accepted engineering practices.
- c. Permanent stabilization of any portion of the development site not under active construction for a period of 6 months shall be required. No area greater than 5 acres may be disturbed at one time for earth removal, stockpiling, and/or processing, and prior to the commencement of disturbance of any subsequent area, the preceding 5-acre area shall be stabilized, either temporarily or permanently, as required by the Building Commissioner. In areas where vertical cuts exceed 30 feet, the Board of Appeals may allow, at their sole discretion, areas of disturbance in excess of 5 acres, provided that based on documentation prepared by a qualified professional, the Board finds that a larger area will minimize operation hazards or is necessary due to the size and scale of an earth removal operation.
- d. Within 3 months of the reasonably anticipated completion of operations, the applicant shall provide written notice to the Building Commissioner of intent to complete operations and the estimated date thereof, and shall make the premises available for inspection by the Building Commissioner for conformity with the Special Permit, Zoning Permit and all approved Development Plans in advance of the intended date of completion.
- e. The Building Commissioner shall calculate a cash performance guarantee in an amount reasonably estimated to restore, regrade and revegetate the area under active excavation and other disturbed areas, if any, and shall include an adjustment for projected inflation or other predictable factors affecting cost of restoration over the term of the Earth Removal special permit plus one year. A cash performance guarantee shall be in place prior to the commencement of work.

Time Limitation. Earth removal operations permitted by Zoning Permit or Special Permit shall be limited in time to 3 years from the start of excavation, and the applicant shall provide written notice to the Building Commissioner prior to the commencement of work.

- 1. Sixty days prior to the completion of the original 3-year limitation period, the applicant may file a written request to the permit or special permit granting authority for an extension of the excavation period, which shall be granted if determined to be

consistent with the intent and purpose of this Section and the Bylaw generally, and may be denied for one or more of the following reasons:

- a. One or more violations of the conditions of the permit or work not consistent with the approved Zoning Permit;
  - b. Abandonment of the work site, as determined by the Building Commissioner;
  - c. Failure to maintain the required landscaping, dust suppression measures, erosion control measures and proper stabilization measures;
  - d. The presence of any unsafe condition; or
  - e. One or more violations of the approved heavy equipment route plan or other traffic control conditions of the Earth Removal special permit.
2. A maximum of one excavation period extension may be granted for a term not to exceed two years. Additional extensions shall require a modification/reapplication of the Zoning Permit or Special Permit.

Additional Conditions and Safeguards. The Board of Appeals may impose additional conditions and safeguards for earth removal for all earth removal operations included in Section C of this Section 205-18.F if necessary to protect the public health and safety.

Denial of Earth Removal Special Permit. In addition to the special permit conditions of §205-9(B)(1) the Board of Appeals may deny an earth removal Special Permit if it determines that, even subject to the foregoing conditions, the earth removal operation:

- (a) Would not be necessary and incidental to an identified lawful principal use, a lawful structure, an approved subdivision road, or lawful utility installation, or
- (b) Would be excessive in scope or nature to the foregoing end use or structure, or
- (c) Would create unsafe conditions on or off the property, or
- (d) Would be a detriment or nuisance to nearby landowners or to the Town in general by reason of noise, dust, vibration, or other objectionable conditions; or
- (e) Is not in compliance with any of the provisions of Section 205-18.F.

#### **D. Prohibited Earth Removal Operations**

Notwithstanding anything in this Section 205-18.F to the contrary, earth removal operations as a principal use is prohibited in all Districts except the LI District.

#### **E. 5 Year Prohibition**

On sites where:

1. Over 10,000 cubic yards of earth are removed by zoning permit per Section 205-18(B) or
2. Earth removal in the RR, R40, R25, R20-SL, R20-MD or R20-MF District is allowed by special permit for an identified lawful principal use;

The site shall not be used for any other principal use until five years from the expiration of the excavation period or any extension thereof.

## **F. Segmentation**

If the Building Commissioner determines that an earth removal operation has been impermissibly segmented to avoid the provisions set forth in this section, he may deny a Zoning Permit or take other appropriate steps to enforce this by-law.